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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/505,315

05/16/2005

Zhicheng Shen

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10/18/2006

SYNGENTA BIOTECHNOLOGY, INC.

PATENT DEPARTMENT

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EXAMINER

KUBELIK, ANNE R

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/505,315

Applicant(s)

SHEN ET AL.

Examiner

Anne R. Kubelik

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-120 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-120 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, in part, and claims 2-14, 18-22, 32-48, 91-94, 99 and 120-121, drawn to a nucleic acid that hybridizes to SEQ ID NO:1, vectors, host cells, plants and seeds comprising it, a method of using it to make a toxin and a method of making the transformed plants.

Group II, claim(s) 1, 25 and 81, in part and claim 82, drawn to a nucleic acid comprised in clone C1674 and a toxin encoded by the nucleic acid.

Group II, claim(s) 1, 25 and 81, in part, and claim 83, drawn to a nucleic acid comprised in clone C536 and a toxin encoded by the nucleic acid.

Group III, claim(s) 1, 26 and 84, in part and claims 27 and 85, drawn to a nucleic acid comprised in clone pNOV3910 and a toxin encoded by the nucleic acid.

Group IV, claim(s) 1, 26 and 84, in part and claims 28 and 86, drawn to a nucleic acid comprised in clone pNOV3911 and a toxin encoded by the nucleic acid.

Group V, claim(s) 1, 26 and 84, in part and claims 29 and 87, drawn to a nucleic acid comprised in clone pNOV3906 and a toxin encoded by the nucleic acid.

Group VI, claim(s) 1, 26 and 84, in part and claims 30 and 88, drawn to a nucleic acid comprised in clone pNOV3905 and a toxin encoded by the nucleic acid.

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Group VII, claim(s) 1, 26 and 84, in part and claims 31 and 89, drawn to a nucleic acid comprised in clone pNOV3912 and a toxin encoded by the nucleic acid.

Group VIII, claim(s) 49-60, 63-775, 79-80, 90 and 95-98, drawn to a vip3 toxin, compositions comprising it, and a method of using it to control insects.

Group IX, claim(s) 100-119, drawn to a hybrid toxin, nucleic acid encoding it, compositions comprising it, a method of producing it, and a method of using it to control insects.

Group X, claim(s) 120, drawn to a nucleic acid encoding SEQ ID NO:9.

The inventions listed as Groups I-X do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: They do not share a special technical feature

The technical feature shared by the Groups is a toxin-encoding nucleic acid that hybridize to SEQ ID NO:1 and toxins encoded by it. This feature is taught by Schnepf et al (WO98/00546, cited in the search report), who teach such nucleic acids; Schnepf et al among other not novel. Therefore, the technical feature linking the claims is not special.

Claims 15-16 could not be placed in restriction groups because they are directed to nucleic acids of SEQ ID NO:11 and 32; however, SEQ ID NO:11 and 32 are amino acid sequences.

Claims 23-24 and 61-62 could not be placed in restriction groups because they are directed to nucleic acids encoding proteins of SEQ ID NO:12 or 33; however, SEQ ID NO:12 and 32 are nucleotide sequences.

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Claims 76-77 could not be placed in restriction groups because they are directed to proteins encoded by the nucleic acids of SEQ ID NO:11 or 32; however, SEQ ID NO:11 and 32 are amino acid sequences.

Claims 17 and 78 could not be placed in restriction groups because they are directed to SEQ ID NO:34, which does not exist.

Claims 15-17, 23-24, 61-62, and 76-78 will be placed in appropriate restriction groups when the sequence issues are resolved (see below).

Applicant is advised that for the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Sequence Rules***

2. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825.

Claims 15-17, 23-24, 61-62, and 76-78 recite sequence identifiers that do not correlate with the type of molecule recited in the claim, as discussed above. Correction is required.

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Full compliance with the sequence rules is required in response to this Office action. A complete response to this Office action must include both compliance with the sequence rules and a response to the issues set forth herein. Failure to fully comply with both of these requirements in the time period set forth in this Office action will be held to be non-responsive.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975.

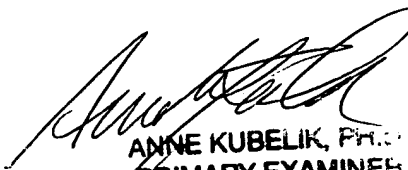
The central fax number for official correspondence is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Anne Kubelik, Ph.D.  
October 3, 2006



ANNE KUBELIK, Ph.D.  
PRIMARY EXAMINER